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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,422	11/08/2001	Aulis Peralá	111075	5258

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EXAMINER

OCAMPO, MARIANNE S

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 07/23/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

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Applicant(s)

PERALA, AULIS

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Correspondence address

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-- The MAILING DATE of this communication appears on

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become AB.
- Any reply received by the Office later than three months after the mailing date of this communication, even if time earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2002.
- 2a) ☐ This action is FINAL.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution a closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5

- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Part of Paper No

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 – 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claim 1 recites the limitations "the underside of the filter cloth" in line 6 and "the filtering element" in lines 10 – 11 of the claim. There is insufficient antecedent basis for these limitations in the claim.

- b. Claim 4 also recites the limitation "the weft" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

- c. Claim 6 recites the limitation "the upper surface of the filter cloth" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

- d. Claim 7 recites the limitation "the surface of the filtering element" in the last two line of the claim. There is insufficient antecedent basis for this limitation in the claim. Does claim 7 claim a filtering module which includes (the combination of) the filtering element and the filter cloth, or just that of the filter cloth? For examination purposes, the examiner has considered that

the filtering module include only that of the filter cloth, and that the filter cloth/module is capable of used with a filtering element.

e). Claim 8 recites the limitations “a final filtering module” and “the structure of the filtering module”. There is insufficient antecedent basis for these limitations in the claim. Furthermore, the claim is indefinite and unclear as to what structural feature or element is being referred to as the final filtering module. It is also indefinite because it is not clear what type of “structure of the filtering module” is being defined or referred to in the last line of this claim.

f). Claim 9 recites the limitation “the channels lead the filtered liquid to openings in the filter element”. Is the filtering element considered part of this “final filtering module”? Or does the final filtering module only includes that of the filter cloth? Since claim 9 depends from claim 7, and claim 7 has not claimed the filtering element as part of the filtering module, it is unclear as to what invention is being claimed by claim 9? Is it merely adding an additional feature of the channels or is it claiming a “final filtering module comprising a filtering element and the filter module made of the filter cloth with channels”?

g). Claim 10 depends from claim 7 and therefore, it suffers the same defects since it depends therefrom.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 3 - 5 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Brushafer et al. (US 5,843,542).

5. Concerning claim 1, Brushafer et al. disclose a filter cloth (10) composed of a plurality of yarns in the transverse and the longitudinal directions, the filter cloth comprising a filtering portion having a structure and density according to desired filtering characteristics for separating liquid (fluid) from a mixture consisting of fluids/liquid and solids (fibrous particulates/lost circulation material), and which the filter cloth is capable of being arranged against a filtering element in a filtering apparatus, and an underside of the filter cloth comprising substantially parallel yarns that are thicker than the rest of the yarns of the cloth and the thicker yarns form parallel channels therebetween , as in fig. 3.

6. Regarding claim 3, Brushafer et al. further disclose the diameter difference between the other yarns (14b) and the thicker yarns (14a) of the filter cloth (10), being at least 1:1.4 or more, particularly 1:2.7, as in col. 5.

7. With regards to claim 4, Brushafer et al. also disclose the thicker yarns (in another embodiment, yarns 40) have the same direction as the weft yarns (42), as in figs. 4 - 4a.

8. With respect to claim 5, Brushafer et al. disclose at least some of the yarns used in the filter cloth (10) being heat-shrinkable, as in cols. 2 – 7.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 7 - 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krasnow (US 4,019,987) in view of Brushafer et al. (542).

11. Concerning claim 7, Krasnow discloses a filtering module (16) to be arranged on a filtering element (10) as a filtering surface when liquid is separated from a mixture consisting of solids and liquid by means of a filtering apparatus, which filtering module is made of a filter cloth (16) composed of yarns in the transverse and longitudinal directions and having an underside (surface against the filtering element 10) whereby liquid filtered by the cloth (16) is

allowed to flow in the direction of an upper surface of the filtering element (10). Krasnow fails to disclose the underside of the filter cloth comprising substantially parallel yarns that are thicker than other yarns of the cloth and channels formed between the thicker yarns. Brushafer et al. teach a similar woven fabric screen (10) capable of use as a filter cloth/module, comprising yarns (40, 42) in the transverse and longitudinal directions and having an underside comprising substantially parallel yarns (40) that are thicker than other yarns (42) of the cloth and channels (spaces) formed between the thicker yarns, as in figs. 4 - 4a. It is considered obvious to one of ordinary skill in the art at the time of the invention to modify the filter cloth of Krasnow by substituting it with the filter cloth/woven fabric screen taught by Brushafer et al., in order to provide an improved filter cloth which is economical to manufacture and provide increased flexibility and comformability thereof (cols. 1 - 2). The increased flexibility and comformability of the woven screen/filter cloth of Brushafer et al. would allow the filter cloth to be shaped and formed into any desirable configuration required in use thereof in filtering applications, without worrying about undue stress or stretch damages which conventional woven wire screens used by Krasnow have problems with.

12. With respect to claim 8, Krasnow discloses the filter cloth (16) being arranged such that the channels in the bottom of the cloth are directed according to the structure of the filtering module, as in figs. 1 and 3.

13. Regarding claim 9, Krasnow discloses the filter cloth (16) being arranged such that the channels in the bottom of the cloth are directed such that the channels lead the filtered liquid to openings in the filtering element (10), as in figs. 1 and 3.

14. With regards to claim 10, Krasnow fails to disclose the yarns being heat-shrinkable yarns, allowing the filtering module to be stretched over the filtering element by thermal treatment. Brushafer et al. further teach the yarns (40, 42) forming the filtering module/ filter cloth (10) being heat-shrinkable yarns, as in cols. 2 – 7, and thereby capable of allowing the filtering module to be stretched over the filtering element by thermal treatment. The same motivation used in claim 7, is being applied here.

Allowable Subject Matter

15. Claims 2 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. The following is a statement of reasons for the indication of allowable subject matter: none of the prior art has disclosed or rendered obvious a filter cloth having the limitations of the thicker yarns having multifilament yarns moulded thereat, thereby forming a denser cloth at

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thicker yarns, as in claim 2 and the module further comprising a batt needled to the filtering portion of an upper surface of the filter cloth to obtain a denser structure, as in claim 6.

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne S. Ocampo whose telephone number is (703) 305-1039. The examiner can normally be reached on Mondays to Fridays from 8:00 A.M. to 4:30 P.M..

18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on (703) 308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

19. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

msd
M.S.O.
July 17, 2002

M. Savage
MATTHEW O. SAVAGE
PRIMARY EXAMINER